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10/614,807

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EXAMINER

WILKINS III, HARRY D

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The time period for reply, if any, is set in the attached communication.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte VLADIMIR M. SEGAL, WUWEN YI, STEPHANE FERRASSE,
CHI TSE WU, SUSAN D. STROTHERS, FRANK A. ALFORD and
WILIAM B. WILLETT

Appeal 2009-004511
Application 10/614,807
Technology Center 1700

Decided: October 27, 2009

Before EDWARD C. KIMLIN, TERRY J. OWENS, and
MARK NAGUMO, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 16, 19-39 and 110.
Claim 16 is illustrative:

16. A copper alloy sputtering target consisting essentially of :

less than or equal to about 99.99% copper, by weight;

at least one alloying element selected from the group consisting of Cd, Ca, Au, Ag, Be, Li, Mg, Al, Pd, Hg, Ni, In, Zn, B, Ga, Mn, Sn, Ge, W, Cr, O, Sb, Ir, P, As, Co, Te, Fe, S, Ti, Zr, Sc, Si, Pt, Nb, Re, Mo, and Hf, a total amount of the at least one alloying element present in the target being at least 100 ppm and less than 10% by weight; the target having a hardness of at least 40 HB; and

an average grain size of less than 1 micron with a grain size uniformity standard deviation throughout the target of less than or equal to about 15% (I-sigma).

The Examiner relies upon the following references as evidence of obviousness:

Perry	6,896,748 B2	May 24, 2005
Pavate	6,391,163 B1	May 21, 2002
Nagano	2001/0035238 A1	Nov. 1, 2001

Appellants' claimed invention is directed to a copper alloy sputtering target consisting essentially of no more than about 99.99% copper, by weight, and at least one of 38 alloying elements. The alloy has a hardness of at least 40 HB, and a grain size uniformity standard deviation throughout the target of less than or equal to about 15%.

The appealed claims stand rejected under 35 U.S.C. § 103(a) as follows:

(a) claim 16 and 19-28 over Pavate in view of Perry,

- (b) claims 29, 30 and 32-37 over Perry,
- (c) claims 31, 38 and 39 over Perry in view of Pavate, and
- (d) claim 110 over Perry in view of Nagano and Pavate.

Appellants do not present an argument that is reasonably specific to any particular claim on appeal. Accordingly, all the appealed claims stand or fall together.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we agree with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of §103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection for essentially those reasons expressed in the Answer.

Appellants make no argument that the combined teachings of the applied references would not have made the claimed invention obvious to one of ordinary skill in the art under §103. Rather, the principal argument advanced by appellants is as follows:

The Applicant respectfully considers Perry as a reference that is not relevant to the case at hand, primarily because the Perry reference was not filed prior to the effective filing date of the claims of the current application, which was December 16, 1999. The parent application, which is now US 6878250 filed on December 16, 1999, and one of the priority applications, US Provisional Application 60/396544, which was filed on June 16, 2002, both predate the filing date of the Perry reference-July 18, 2002.
(App. Br. 8, first para.)

It is the Examiner's position that the present claims on appeal are not entitled to the filing date of the '250 patent and the provisional application because they do not provide original written descriptive support within the meaning of 35 U.S.C. § 112, first paragraph. In particular, the Examiner

maintains that the '250 patent and the provisional application do not provide descriptive support for the claimed hardness of at least 40 HB and grain size uniformity standard deviation throughout the target of less than or equal to about 15%, and all the 38 recited alloying elements.

It is well settled that an applicant, when faced with a written description rejection under § 112, first paragraph, must respond by placing on the record where, by column and line number in the specification or supporting documents, the descriptive support for each disputed claim limitation maybe found. *See Hyatt v. Doll*, 576 F.3d 1246, 1286 (Fed. Cir. 2009); *In re Alton*, 76 F.3d 1168, 11759 (Fed. Cir. 1996). In the present case appellants have not met their burden.

Appellants submit that support for the claimed alloying elements can be found in the '250 patent at col. 4, ll. 42-44 which reads “[h]igh strength monolithic targets may be fabricated from metal materials like pure aluminum, copper, gold, platinum, nickel, titanium, and their alloys”. However, this disclosure provides support for only 5 of the recited 38 alloying elements, and places no limitation on the amount of copper being less than or equal to about 99.99%, by weight. Clearly, this relatively narrow class of alloys does not describe the much more extensive class presently claimed.

The Provisional Application cited by Appellants is even less availing since it provides no disclosure of the claimed alloys and claims a monolithic cooper target comprising at least about 99.9% copper. Also, we note that the provisional application lists different inventors than the inventors of the present application and has a filing date of July 16, 2002, not the date stated by Appellants, June 16, 2002.

Appellants also contend “[i]t is clear that if the ‘250 patent were not the parent patent application to the current continuation-in-part application, it would have been cited as a 103(a) reference for mentioning “alloying elements and other elements” (App. Br. 15, last para.). However, it is by now axiomatic that an applicant may not establish descriptive support for a claim recitation by demonstrating its obviousness under § 103.

Concerning the claimed “grain sized uniformity standard deviation throughout the target of less than or equal to about 15%”, Appellants cite the ‘250 patent at col. 5, ll.5-15, col. 10, ll. 40-46, and col.11, ll. 4-11. However, the cited passages are totally devoid of any disclosure of a grain size uniformity standard deviation, let alone a value that is less than or equal to about 15%. We also find no support for this claim limitation in the provisional application.

As for the claimed hardness of at least 40 HB, Appellants submit that the claimed hardness is an inherent property based on the specific material disclosed in the ‘250 patent (Rep. Br. 14, 3rd para.). However, Appellants have not presented a compelling, substantive analysis, let alone objective evidence, to establish the asserted inherency. Appellants’ arguments in the Brief are no substitute for objective evidence. *In re Pearson*, 494 F.2d 1399, 1405 (CCPA 1974).

In conclusion, based on the foregoing, the Examiner’s decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. §1.136(a)(1)(iv).

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Application 10/614,807

AFFIRMED

tc

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